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## A REVIEW OF THE MYXOSARGINI

(Diptera, Stratiomyidae)

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Most students of the Stratiomyidae have considered the genus *Myxosargus* Brauer as standing more or less alone, to be placed in the Stratiomyinae for want of a better place. However, Brauer (1882) recognized the relationship of this genus to *Melanochroa*, *Nothomyia* and, more distantly, *Exochostoma*. A study of the comparative anatomy of these genera indicates that Brauer was wholly correct; the general body form and wing venation of *Myxosargus*, *Nothomyia*, and, presumably, *Melanochroa* are practically identical, whereas the antennal structure shows an interesting series of intergrades from one genus to the other.

The tribe Myxosargini, of the Stratiomyinae, is here proposed for the above genera, as well as for *Prosopochrysa* de Meijere, *Acanthasargus* White and *Rhaphiocerina* Lindner. The question as to whether *Exochostoma* is valid, and, if so, whether it belongs here, probably will have to depend on the rediscovery of that genus. This matter has been discussed by Verrall (1901, p. 134), Séguy (1926, pp. 65-6) and Lindner (1938, p. 78). At present, all we have to depend on are Macquart's description and illustrations, which were notably inaccurate.

I am not sure whether all six genera considered here can be maintained. *Prosopochrysa*, *Rhaphiocerina*, *Nothomyia*, and *Myxosargus* seem sufficiently distinct from one another; but *Acanthasargus* and *Melanochroa* may have to be considered synonyms of *Nothomyia*. In general, the five genera are not very sharply defined.

### Tribe Myxosargini James, new tribe

The tribe may be characterized as follows: Eyes of male contiguous (separated in *Melanochroa*), those of female separated, the front broadening gradually toward antennae; post ocular orbits narrow; antennae situated on more or less of an elevation, consisting of eight segments (except possibly in *Melanochroa*), the

terminal two or three segments tending to form an arista; face more or less produced downward, in *Myxosargus* noticeably so, in the other genera more obscurely so or not at all. Thorax narrow in front, broadest at wing bases; scutellum characteristically two-spined, the spines sometimes reduced to denticles or absent. Legs rather short, unmodified. Wing venation characteristic,  $R_1$  ending near apex of discal cell;  $R_{2+3}$  short, arising considerably beyond r-m, forming at least a  $45^\circ$  angle with  $R_{4+5}$ , and ending near apex of  $R_{2+3}$ ; (exception, *Prosopochrysa*);  $R_4$  usually wanting; discal cell of moderate size, pentagonal or hexagonal, somewhat longer than high; media three-branched, but the first and third branches sometimes weakened, or the third even absent; second anal vein slightly but distinctly sinuate (except in *Rhaphiocerina*?), but in any event the anal cell broader on apical half. Abdomen flat, subovate, usually unicolorous, sometimes with pale markings.

### PROSOPOCHRYSA de Meijere

De Meijere, 1907, Tijd. v. Ent., 50:220; Enderlein, 1914, Zool. Anz., 43:293; Brunetti, 1920, Fauna Br. India, I, p. 86; 1923, Rec. Indian Mus., 25:161.

According to Brunetti's (1923) illustrations of the head and wing, this genus certainly belongs in this tribe. The wing is essentially that of *Nothomyia* except for the complete absence of vein  $M_1$  and the fact that vein  $R_{2+3}$  separates from  $R_{4+5}$  at cross-vein r-m, but runs closely parallel to  $R_{4+5}$  and then bends sharply to the margin. The antennae, according to Brunetti's figure, are similar to those of *Nothomyia scutellata*. The scutellum is unspined.

Genotype, *Prosopochrysa (Chrysochlora) vitripennis* Doleschall, the only species known.

### PROSOPOCHRYSA VITRIPENNIS Doleschall

Doleschall, 1856, Nat. Tijd. Ned. Ind., 10:408; de Meijere, 1907, Tijd. v. Ent., 50:220; Brunetti, 1920, Fauna Br. India, I, p. 86; 1923, Rec. Indian Mus., 25:161.

*Microchrysa albitarsis* Brunetti, 1913, Rec. Ind. Mus., 8:156; 1920, Fauna Br. Ind., I, p. 86 (synonymy).

*Geosargus vitripennis* Enderlein, 1914, Zool. Anz., 43:588.

From India and Java.

### RHAPHIOCERINA Lindner

Lindner, 1938, Die Fliegen der Pal. Region, 18, p. 32.

I know this genus only from Lindner's illustrations and description. The antennae are shown without an arista, but this

peculiarity is mentioned nowhere in the text and is contrary to Lindner's diagnosis of the subfamily (Geosarginae). According to the figure, vein  $R_4$  is present;  $M_1$  and  $M_3$  are weak, and vanish on their apical two-thirds or more;  $M_2$  extends almost to the wing margin, and 2nd A is straight, though it diverges from the basal part of the cubitus. The thorax and abdomen, in the one species known, are metallic black marked with yellow, the former with widely separated longitudinal stripes, the latter with lateral and apical margins and interrupted posterior margins of the segments.

Genotype, *Rhaphiocerina* (*Rhaphiocera*) *hakiensis* Mats., the only species known.

#### RHAPHIOCERINA HAKIENSIS Matsumura

Matsumura, 1906, Thousand Insects of Japan, Addit. II, p. 373 (*Rhaphiocera*); Lindner, 1938, Die Fliegen der Pal. Region, 18, p. 32.

Known only from Japan.

#### ACANTHASARGUS White

White, 1914, Pap. Roy. Soc. Tasmania, 1914-15:60; Hardy, 1932, Proc. Roy. Soc. Queensland, 44:48-9.

I have seen only one species (*A. varipes* Hardy); in it, the arista is well developed, the basal segments of the antennae are shorter than those of Lindner's illustration of *Rhaphiocerina*, vein  $R_4$  is absent, and 2nd A is distinctly sinuate. Veins  $M_1$ ,  $M_2$ , and  $M_3$  as in *Rhaphiocerina*. In *A. varipes* there is a transverse white callus running from eye to eye above the antennae and separated from the rest of the front by a suture. In *Nothomyia* this raised area is present, but is indistinct and never white.

Genotype, *A. palustris* White, by monotypy.

The following four species are known, all from Australia:

*A. palustris* White, 1914, Pap. Roy. Soc. Tasmania, 1914-15:60. Tasmania.

*A. gracilis* White, 1916; Proc. Linn. Soc. N.S.W., 41:98. Australia.

*A. flavipes* Hardy, 1932, Proc. Roy. Soc. Queensland, 44:48. Queensland.

*A. varipes* Hardy, 1932, Proc. Roy. Soc. Queensland, 44:49. Queensland.

## KEY TO THE SPECIES OF ACANTHASARGUS

(After Hardy)

1. Thorax and abdomen entirely black.....2
- Thorax and abdomen yellow in part.....3
2. Scutellum and scutellar spines black.....*palustris* White
- Scutellum with a yellow bar between yellow scutellar spines.....  
.....*gracilis* White
3. Scutellum and spines entirely yellow; legs almost entirely yellow .....*flavipes* Hardy
- Scutellum black, scutellar spines yellow; legs yellow with sections of the femora and tibiae black.....*varipes* Hardy

## MELANOCHROA Röder

Röder, 1886, Ent. Nachricht., 12:139; Brauer, 1882, Denkschr. Kais. Akad. Wiss. Wien., 44:69.

I have not seen any specimens of this genus but both Brauer and Williston have associated it with *Myxosargus*. Williston gives as the only generic characters separating *Melanochroa* and *Myxosargus* "the non-contiguity of the male eyes and the aristiform termination of the antennae." To this may be added that the face is not produced downward, as in *Myxosargus*. Williston did not consider this of generic value, because two species of *Euryneura* (which, incidentally, were later separated generically by Kertész) differ in this respect. I cannot agree with him, however. Generic characters must be determined separately in each instance. What is of generic value in one group may not be of even specific value in another. Failure to recognize this fact has contributed much to the artificiality of our generic and higher classifications.

Both Brauer and Röder attribute this genus to Schiner. However, the first description I can find is that of Röder. I am, therefore, following the lead of Williston and Kertész in crediting *Melanochroa* to Röder. Brauer, to be sure, placed it in his key, but without a description of the type species and on the basis of the erroneous statement (at least according to the descriptions of Röder and Williston) that the eyes of the male are contiguous.

Both Brauer and Röder state that the flagellum of the antennae is eight-segmented. This is contrary to the condition which I have found in related genera.

## MELANOCHROA DUBIA Röder

Röder, 1886, Ent. Nachricht., 12:139; Williston, 1888, Trans. Amer. Ent. Soc., 15:254.

The only species was described from Brazil and subsequently recorded from Rio de Janeiro by Williston.

## NOTHOMYIA Loew

Loew, 1869, Cent., VIII, 4; Brauer, 1882, Denkschr. Kais. Akad. Wiss. Wien., 44:69; Enderlein, 1914, Zool. Anz., 44:15; James 1935, Canad. Ent., 67:269; 1939, Proc. U. S. Nat. Mus., 86:597. *Berisargus* Lindner, 1933, Rev. de Ent., 3:201.

The position of this genus in the system of classification has been the subject of considerable dispute. Loew originally placed it in the Geosarginae, but stated that it was intermediate between *Michrochrysa* and *Oxycera*. Most authors have accepted this disposal. Lindner placed *Berisargus* in the Geosarginae in accordance with what he called our artificial system of classification, but associated it more closely with the Beridinae. What his reasons for this association were, he did not say.

Too much emphasis should not be placed on the differences in antennal structure in this genus and in *Myxosargus*. For instance, a well graded series can be found ranging from typical *Myxosargus* antennal structure through *Berisargus lopesi*, *B. fasciatipennis*, *B. borgmeieri*, *Nothomyia calopus*, and *N. scutellata*.

The difference in facial profile of *Nothomyia* and *Myxosargus* has also been taken to be of generic value; yet *M. knowltoni* might be considered intermediate in position in this respect. Furthermore, *Myxosargus* has banded wings; *Nothomyia* may have more or less darkened wings, yet those of *Berisargus fasciatipennis* are described as banded.

Genotype of *Nothomyia*, *N. scutellata*, by designation of Brauer, 1882; of *Berisargus*, *B. borgmeieri*, by monotypy.

## KEY TO SPECIES OF NOTHOMYIA

1. Wings brownish-gray, with three milky-white cross-bands.....  
.....*fasciatipennis* Lindner
- . Wings more or less uniformly hyaline or light brownish, not definitely cross-banded .....2
2. Scutellar spines reduced to tubercles or very short, much shorter than half the distance between them.....3
- . Scutellar spines of ordinary length, that is, definitely longer than half the distance between them.....4
3. Scutellum yellow, black at base; spines short, but distinct; femora black, with more or less of a greenish cast....*scutellata* Loew
- . Scutellum metallic green; spines reduced to tubercles; femora metallic green .....*intensica* Curran
4. Femora on apical third bright yellow.....*calopus* Loew
- . Femora black .....5
5. Flagellum of antenna very short, bright yellow..*parvicornis* James
- . Flagellum of antenna black or blackish.....6

6. Terminal antennal segment thick and ribbon-like at base, suddenly narrowing to a bristle-like part before its middle; scutellar spines robust, blunt, black.....*nigra*, n. sp.
- . Terminal antennal segment an arista, or, if thickened at base, gradually tapering to a bristle-like part; scutellar spines slender, sharp, yellow .....7
7. Antenna with a well-differentiated arista, the thickened portion of the flagellum shorter than antennal segments one and two combined; vein  $R_4$  wanting.....8
- . Terminal segments of flagellum not arista-like, and its basal portion as long or longer than segments one and two combined; halteres yellow .....9
8. Pile of face black in the middle or largely black; pleura greenish .....*borgmeieri* Lindner
- . Pile of face white; pleura black.....*viridis* Hine
9. Vein  $R_4$  wanting; halteres infuscated in male, distinctly brownish-black .....*lopesi* Lindner
- . Vein  $R_4$  present; halteres yellow.....*longisetosa* Lindner

#### NOTHOMYIA FASCIATIPENNIS Lindner

*Berisargus fasciatipennis* Lindner, 1935, Rev. de Ent., 5:401.

Known only from the male type, from Jussaral, Angra, E. do Rio, Brazil.

#### NOTHOMYIA SCUTELLATA Loew

Loew, 1869, Cent., VIII, 4.

Type series from Cuba. My records are all from Cuba: 1 ♂, 1 ♀, Guantanamo, May 7, 1914 (C. T. Ramsdan); 2 ♀, Loma del Gato, Cobre Range, Ote., 3000 feet, July 3-7, 1936 (Darlington); 1 ♀, Mountains north of Imias, Eastern Oriente, 3000 to 4000 feet, July 25-28, 1936 (Darlington); 1 ♂, Buenos Aires, Trinidad Mountains, May 4, 1932 (S. C. Bruner, A. Otero); 1 ♂, Rio Almendares, May 27, 1934 (L. C. Scaramuzza); 2 ♂, Santiago de las Vegas, Habana, May 11, 1924 (S. C. Bruner) and May 19, 1932 (A. R. Otero).

#### NOTHOMYIA INTENSICA Curran

*Merosargus intencicus* Curran, 1928, in Gowdy, Ent. Bul. Dept. Agr. Jamaica, 4:33.

This species has the general body form and wing venation of a *Nothomyia*. The antennae are wholly black; the basal three segments of the flagellum (thickened part) are slightly shorter, taken together, than the first two antennal segments combined; the arista is long. Body metallic green, the dorsal parts with a strong purplish cast; legs black; middle and hind basitarsi, except apices,

white; femora with a metallic green cast.  $M_1$  and  $M_3$  developed only on basal third or less.

Curran probably placed this species in *Merosargus* because of the apparently unspined scutellum; however, other characters suggest *Nothomyia*, and evidences of spines are seen in the broad, thick, fused tubercles at the apex of the scutellum.

I have seen four males, Bath, Jamaica, April 1, 1931 (E. L. Bell), and 1 ♂, Balaclava, Jamaica (A. E. Wright).

#### NOTHOMYIA CALOPUS Loew

Loew, 1869, Cent., VIII, 5.

Type, female, Cuba. I have the following records. Florida: 1 ♂, Hudson, July 13, 1939 (P. B. Lawson). Cuba: 1 ♀, Santiago de las Vegas, March 4, 1932 (A. Otero); 1 ♀, Baraqua, August 12, 1927 (L. C. Scaramuzza).

#### NOTHOMYIA PARVICORNIS James

James, 1939, Proc. U. S. Nat. Mus., 86:598.

Holotype, male, San Carlos, Costa Rica.

#### *Nothomyia nigra* James, new species

Female. Head shining black; front, vertex, and post-ocular orbits with bluish-green reflections. Ocular orbits on each side above antennae with a silvery-pollinose patch. Pile of face and lower part of front black, that of rest of head golden; some black pile on front, and there may be some golden on face; that of lower part of head dense and conspicuous. Antennae black; ratio of segments 8:8:5:3:3:3:5;22; pile on first two black, on others white and inconspicuous; segments three to six robust; seven less than half as wide (from front view) as six; eight as wide at base as width of seven, but suddenly narrowing just before middle to an aristiform style. Thorax, including scutellum and spines, black, shining but reflection somewhat dulled on dorsum; spines thick, blunt, short, about one-third length of scutellum, each two-thirds distance between them; scutellum unusually large, its length, excluding spines, one-third that of dorsum; pile of thorax wholly golden. Legs black with golden pile, only middle and hind basitarsi, except apices, yellow. Halteres yellow. Wings hyaline, veins yellow;  $R_{2+3}$  arising slightly before and ending slightly beyond apex of discal cell;  $M_3$  evanescent on apical third. Abdomen wholly black, with golden pile. Length, 6 mm.

Holotype, female, No. 25662, Museum of Comparative Zoology, and paratype, female, Valla Nuevo, S. E. Constanza, Dominican Republic, 7000 feet, August, 1938 (Darlington).

## NOTHOMYIA BORGMEIERI Lindner

*Berisargus borgmeieri* Lindner, 1933, Rev. de Ent., 3:202.

Types from Alto da Serra, São Paulo, Brazil. I have two pairs from Jussaral, Angra, E. do Rio, October, 1934 (Travassos and Lopes) and October 26, 1935 (Lopes and H. Lent), compared with the types by Dr. Hugo de Sousa Lopes.

## NOTHOMYIA VIRIDIS Hine

Hine, 1911, Ohio Nat., 11:301.

Described from Sandusky, Ohio, and recorded by James (Proc. U. S. Nat. Mus., 86:598) from Puerto Rico.

## NOTHOMYIA LOPESI Lindner

*Berisargus lopesi* Lindner, 1935, Rev. de Ent., 5:401.

Types from Jussaral, Angra dos Reis, E. do Rio, Brazil. I have two pairs from the type locality and from Japuhya, Angra, E. do Rio, October, 1934 (Travassos and Lopes), compared with the types by Dr. Lopes. Also 1 ♂, Juquia, São Paulo (John Lane).

## NOTHOMYIA LONGISETOSA Lindner

*Berisargus longisetosus* Lindner, 1933, Senckenbergiana, 15:328.

Type, male, Itatiaya, Brazil.

## MYXOSARGUS Brauer

Brauer, 1882, Denkschr. Akad. Wiss. Wien., 44:77; Enderlein, 1914, Zool. Anz., 43:612; Curran, 1929, Amer. Mus. Nov., 378, p. 1-4.

Eyes contiguous in the male, separated in the female; antennae eight-segmented, the first and second segments subequal in length or the first the longer; third to fifth compact, but distinctly separated from each other; sixth, seventh, and eighth forming a style, the eighth segment the longest. Face prominent, the antennae situated at its upper angle; below, the face projects below the level of the oral margin. Discal cell rather small. Vein  $R_{2+3}$  arising beyond cross-vein  $r-m$ , which is distinct, although sometimes short;  $R_4$  wanting. Wings cross-banded with blackish.

Eight species have been previously known, four of them from one sex only. So far as known, the genus is confined to the tropical and warmer temperate regions of the New World.

Genotype, *Myxosargus fasciatus* Brauer, by original designation.



The following keys are based, with additions and emendations, on that of Curran's review cited above.

### KEY TO THE SPECIES OF MYXOSARGUS

#### Females

1. Middle and hind femora broadly yellow at base.....  
.....*scutellatus* Williston
- . Middle and hind femora black on basal half or more.....2
2. Antennae wholly black.....3
- . Antennae reddish or yellowish on at least basal two segments..4
3. Base of scutellum black; all tibiae broadly yellow at apex.....  
.....*nigricornis* Greene
- . Scutellum wholly yellow; front tibiae entirely black.....  
.....*knowltoni* Curran
4. Front with a median and two lateral tubercles..*fasciatus* Brauer
- . Front with only one tubercle.....5
5. Scutellum black with yellow border.....*braueri* Williston
- . Scutellum yellow .....6
6. Frontal tubercle geminate, longitudinally divided; knobs of halteres yellow .....7
- . Frontal tubercle not divided, rather small; knobs of halteres brown .....*texensis* Curran
7. Hind tibiae wholly brown or black; black pile on facial snout dense, bushy, upcurved.....*pilosus*, n. sp.
- . Hind tibiae broadly yellow at apex; black pile on facial snout ordinary .....*panamensis* Curran

#### Males

1. Antennae wholly black .....2
- . Antennae reddish or yellow on at least basal two segments.....3
2. Apical half of middle tibiae yellow; pile of mesonotum black...  
.....*nigricornis* Greene
- . Middle tibiae black except extreme apex; pile of mesonotum yellowish .....*knowltoni* Curran
3. Front black with two chalk-white marks at base of antennae  
.....*fasciatus* Brauer
- . Front at most obscurely reddish at base of antennae.....4
4. Apices of all tibiae broadly yellow or yellowish..*texensis* Curran
- . At least hind tibiae wholly black or nearly so.....5
5. Anal cell more or less strongly clouded with brown; middle of mesonotum with yellow pile.....6
- . Basal half of wing hyaline; pile of thorax grayish white.....  
.....*grypus* Enderlein
6. Facial pile all black or blackish, that of snout dense, bushy, upcurved .....*pilosus*, n. sp.
- . Facial pile yellow, except on apex of snout, ordinary.....  
.....*panamensis* Curran

## MYXOSARGUS NIGRICORNIS Greene

Greene, 1918, Proc. Ent. Soc. Wash., 20:71.

The original spelling, *nigricornis*, was a typographical error. The facial projection is prominent and forms an acute angle, when viewed from the side. Type series from Chain Bridge, D. C., and Plummer's Island, Md. I have identified a male from Logan County, Ohio, July 12, 1930 (James S. Hine).

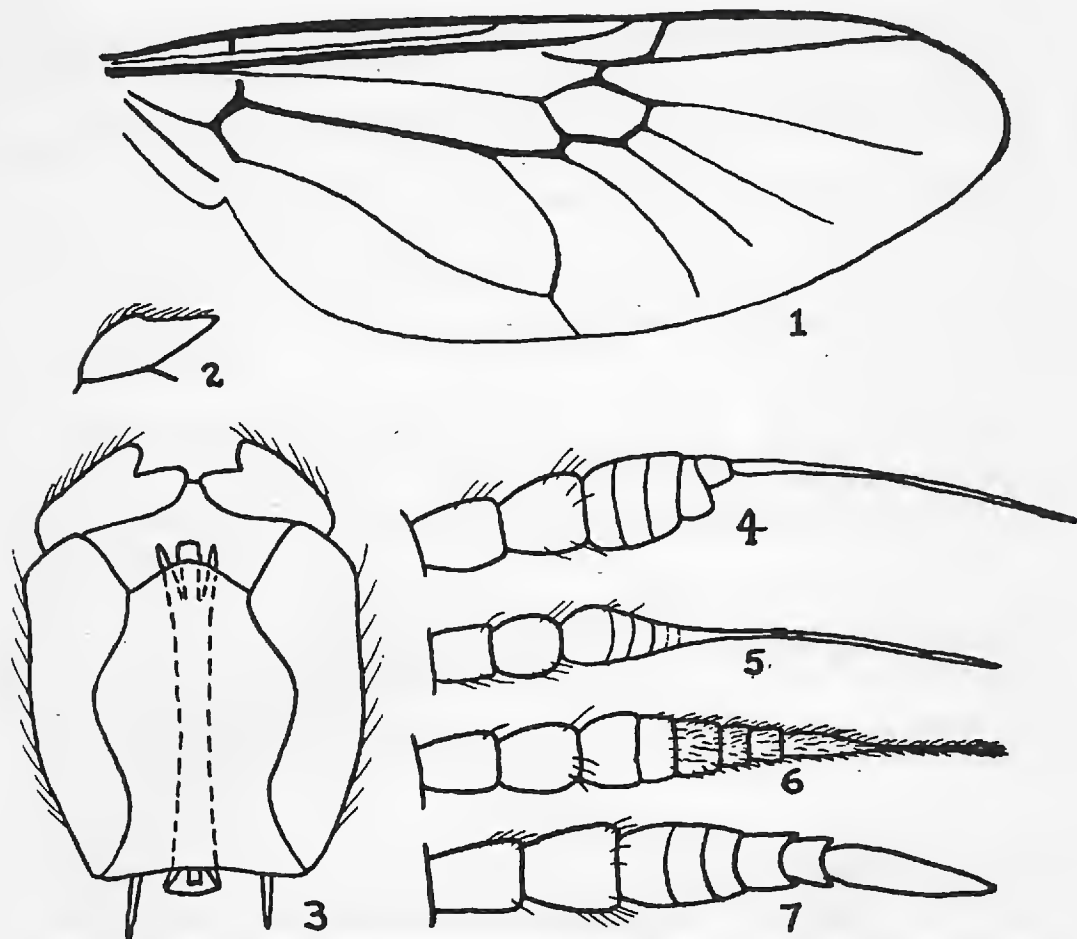


Fig. 1, *Nothomyia calopus* Loew, wing. Fig. 2, *Myxosargus knowltoni* Curran, dististylus of male genitalia. Fig. 3, *Myxosargus pilosus* James, n. sp., male genitalia. Fig. 4, *Nothomyia scutellata* Loew, antenna. Fig. 5, *Nothomyia borgmeieri* Lindner, antenna. Fig. 6, *Nothomyia lopesi* Lindner, antenna. Fig. 7, *Myxosargus knowltoni* Curran, antenna.

## MYXOSARGUS KNOWLTONI Curran

Curran, 1929, Amer. Mus. Nov., 378, p. 2.

Differs from other species known to me in the profile of the facial projection, which forms a decidedly obtuse angle below, in both sexes. Type locality, Clearfield, Utah.

I have seen numerous specimens from various localities in Utah, from the Idaho line to St. George, and from April to August. Other records are as follows. Idaho: Franklin, July 9,

1937 (C. F. Smith, F. C. Harmston), and July 17, 1937 (Knowlton and Smith); Preston, July 4, 1937 (Smith and Harmston) and July 2, 1937 (Knowlton). Oregon: Phoenix, July 13, 1930 (Scullen). California: Big Pine, Inyo County, June 17, 1929 (E. P. Van Duzee); Lone Pine, Inyo County, June 1, 1937 (N. W. Frazier); Los Angeles, May, 1915 (M. C. Van Duzee) and August 3, 1916.

#### MYXOSARGUS TEXENSIS Curran

Curran, 1929, Amer. Mus. Nov., 378, p. 4.

Male (previously undescribed). Scutellum greenish-black like thorax, only apex, lateral margins, and spines being yellow. Middle and hind femora wholly black. Differs from female otherwise only in sexual characters.

Male, Menard County, Texas, July 19, 1928 (R. H. Beamer).

#### *Myxosargus pilosus* James, new species

Male. Head black, shining; two oval silvery-pollinose spots, almost touching each other, on upper part of front; face acutely produced below the oral margin. Pile of head dense, especially below, black with a few pale hairs intermixed, the black pile of front, face, and cheeks half again to twice as long as first antennal segment. Antennae yellow on first two segments, yellowish to brownish at base of flagellum, grading to brown on its terminal segments. Proboscis yellow. Thorax black with a distinctly green cast, the narrow apex and spines of the scutellum yellow; pile comparatively abundant and for the most part as long as that of head, that on middle of dorsum and scutellum yellow, erect, conspicuous, and long, that on sternum and lower parts of pleura yellow and less conspicuous, that on sides of dorsum, metanotal slopes, and upper parts of pleura black. Legs black; extreme tips of front femora and tibiae, apical third to half of middle tibiae, and basal two to three segments of middle and hind tarsi, yellow. Halteres yellow. Wings with usual two dark cross-bands; discal cell rather short and blunt. Abdomen black, yellow-pilose with considerable black pile intermixed, especially on dorsum and sides of basal segments. Genital dististyli broad, bilobed at apex, the lobes blunt, the inner one the broader. Length, 6 mm.

Female. Pile of head no longer than first antennal segment; that of front, vertex, and upper part of face whitish. Front with a median rather indistinctly geminate tubercle. Pile of thorax and abdomen entirely whitish. Scutellum entirely yellow. Hind tibiae briefly yellow at apex. Otherwise as in male.

Holotype, male, University of Arizona collection, allotype, female, and ten male paratypes, Tempe, Ariz., May 17, 1926 (A. A. Nichol); paratype, female, Juan Mina, Rio Chagres, C. Z., April 11 (C. B. Fairchild).

*Myxosargus pilosus guatemalae* James, new subspecies

Differs from the typical subspecies mainly in that the black areas tend to be brownish; the abdomen, in both sexes, is distinctly brownish and lacks black pile; the pile of the metanotal slopes, in the male, is predominantly yellow.

Holotype, male, Ohio State University collection, Amatitlan, Guatemala, Feb. 7, 1905 (J. S. Hine), allotype, female, and paratype, female, Gualan, Guatemala, Feb. 13, 1905.

MYXOSARGUS PANAMENSIS Curran

Curran, 1929, Amer. Mus. Nov., 378, p. 4.

Type series from Barro Colorado Id., Ft. Davis, and Corozal, C. Z., and Panama City. I have identified a female from Mira Flores Locks, C. Z., Jan. 17, 1929 (C. H. Curran).

I have no additional records for the following species belonging to this genus:

*M. scutellatus* Williston, 1901, Biol. Centr. Amer. Dipt., I, p. 251; Curran, 1929, Amer. Mus. Nov., 378, p. 2. Mexico.

*M. fasciatus* Brauer, 1882, Denkschr. Akad. Wiss. Wien., 44:78; Giglio-Tos, 1901, Mem. Acad. Sci. Nat. Torino, 431:109; Williston, 1901, Biol. Centr. Amer. Dipt., I, p. 251; Curran, 1929, Amer. Mus. Nov., p. 2. Mexico.

*M. braueri* Williston, 1888, Trans. Amer. Ent. Soc., 15:254; Curran, 1929, Amer. Mus. Nov., 378, p. 4. Brazil.

*M. grypus* Enderlein, 1914, Zool. Anz., 43:612; Curran, 1929, Amer. Mus. Nov., 378, p. 3. Mexico.

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